



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/302,608	04/30/1999	ZHENGOU GU	TI-28444	7112

23494 7590 03/18/2003

TEXAS INSTRUMENTS INCORPORATED  
P O BOX 655474, M/S 3999  
DALLAS, TX 75265

EXAMINER	
LANIER, BENJAMIN E	
ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/302,608

Applicant(s)

GU, ZHENGOU

Examiner

Benjamin E Lanier

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed January 28<sup>th</sup>, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: concatenating said pseudo-noise sequences, or portions thereof, to generate an augmented pseudo-noise sequence.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Response to Arguments***

2. Applicant's arguments filed January 28<sup>th</sup>, 2003 have been fully considered but they are not persuasive. Applicant's argument that the cited references do not provide an entirely different PN sequence from two or more PN sequence generators is not persuasive because that is not a claimed limitation. Notwithstanding the new matter objection, the applicant's argument that the cited references do not disclose concatenating a plurality of component PN sequences is not persuasive because the Zscheile, Jr. reference meets the definition of "concatenation" since it discloses two or more sequences being combined (Abstract).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2132

4. Claims 1-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Zscheile, Jr., U.S. Patent No 4,776,012 in view of Schneier. Referring to claims 1 and 10, Zscheile, Jr. discloses an apparatus and a method for generating a plurality of PN codes and combining those PN code to produce a composite PN code (Abstract). Zscheile does not disclose that a random sequence generator would be useful in cryptography. Schneier teaches that random sequence generators are used widely in cryptography to encrypt a data stream (Page 421-422). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a random sequence generator for cryptographic purposes as taught in Schneier in order to generate a random encryption key that cannot be reproduced.

Referring to claims 2, 3, 11, and 12, Zscheile, Jr. discloses an apparatus that is capable of generating three PN codes (Col. 2, lines 24-34).

Referring to claims 4-6, and 13-15, Zscheile, Jr. discloses a code combiner to produce a composite PN code (Abstract) where a method of inhibiting the clock which drives the composite PN generator so that you can advance or retard the composite code any desired number of phase positions (Col. 1, lines 46-52). Each individual PN generator also has its own timing gates which can be inhibited in order to jump the PN code a desired number of phase positions (Abstract).

Referring to claims 7 and 17, Zscheile, Jr. discloses a composite code generator apparatus for inhibiting the number of clock system pulses being employed to drive the component code generators by a number of pulses so to control the phase position of the composite code (Col. 1, lines 57-64).

Referring to claim 16, Zscheile, Jr. discloses an exclusive OR gate that may be employed to combine component PN codes (Col. 2, line 21).

Referring to claims 8, 9, 18, and 19, Zscheile, Jr. discloses synchronized clock pulses to the composite PN code generator that may inhibit the PN code a certain number of pulses (Abstract).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is (703)-305-7684. The examiner can normally be reached on M-Th from 7:30am to 5:00pm, F from 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on (703)-305-1830. The fax phone number for the

Application/Control Number: 09/302,608

Page 5

Art Unit: 2132

organization where this application or proceeding is assigned is (703)-746-7239, after final (703)-746-7238, or non-official/draft (703)-746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*B*

*Gilberto Barron*  
**GILBERTO BARRON**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**